荷兰代夫特理工大学的岩石工程学系教学楼

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代夫特理工大学岩石工程学系的新教学楼属于该校的土木工程与地球科学学院，位于学院综合教学楼的一端。引人注目的土木工程教学楼是 Van den Broek 和 Bakema 于 1967 年设计的，其特点之一是突出水平方向的线条硬朗的立面设计；特点之二是用于支撑大楼上部结构并形成了另一层线条的通道和阅读大厅设计。从土木工程教学楼的前部（原来是空间高大而灯光充足的制图工作室）就可以看出这一纵向布局的综合大楼的最终用途，其高度略微超出主体结构。而位于前方的岩石工程学系新大楼将以独具一格的建筑语汇表达出这栋综合大楼中的各个学系的本质。

综合大楼的前端界定了岩石工程学系教学楼的基本构型。建筑应为条形，保留其主要支撑结构并加上一层新的玻璃立面。现存建筑的结构将成为新立面线条、结构和外观的基础。立面动态的轮廓也勾勒出了建筑内部交通设计的轨迹。玻璃立面以双色丝网印刷图案为特点，除了起到建筑意义上的视觉装饰作用以外，还可以减少日晒和光线穿透。丝网印刷的图案为地球的横截面，根据立面的大小在尺度上加以调整，然后重复运用于建筑立面。

入口处有一个位于楼外部的造型大方的楼梯，可以通往建筑的二层。而现在的新大楼完全为钢结构——包括立面、楼梯间、上空空间、凸窗。结构必须非常轻巧，不能有多余的重量。此种结构设计反而于无意间实现了设计师一直希望获得的高度透明和典雅的设计效果，大大提升了建筑空间的宽敞感。建筑外部的钢架楼梯与原建筑内的讲演厅形状相呼应。

通过上空空间将不同楼层的不同功能空间联系到一起。这些上空空间不仅将不

同功能区联系在一起，而且形成了物质的、视觉的和空间的联系。上空空间的安排是交叉错落的，视线清晰，建筑结构一目了然。在立面结构上也体现了不同空间的联系，人们透过透明的玻璃立面就能了解到每个学系研究的范围是地球、水、交通还是建造。整栋楼大部分功能区都是实验室和办公室。

吴同 译／方柘 审

Delft University of Technology s new Department of Geotechnology, part of the school s faculty of Civil Engineering and Geosciences (CEG), is housed in a building at one end of the CEG complex, which was designed by Van den Broek en Bakema. The striking Civil Engineering building was designed by Van den Broek & Bakema in 1967. It features a strong, horizontally accentuated fa ade as well as several passages and lecture halls that, as supports for the upper part of the structure, form a second set of lines. The front section of the Civil Engineering building (previously drawing studios with high ceilings and a great deal of (diffuse) light) represents the end point of the longitudinal faculty complex, and its height deviates from that of the main structure. The new front building will express the essence of the departments housed within it through a unique architecture.

The front end of the CEG complex defines the identity of Geotechnology. It will be stripped; its main support structure will remain and be fitted with a new glass fa ade. The qualities of the present building s architecture will serve as the basis for the lines, structure and appearance of the new fa ade. The fa ade s dynamic contours also shape the movements introduced in the interior design.

The glass fa ade will feature a two-tone silkscreen that, aside from its visual architectonic function, also serves as to reduce sun exposure and penetration. The silkscreen represents a cross-section of the Earth, specifically altered in scale and

repetition for this fa ade. The entrance is marked by a stately outer staircase that provides access to the first floor, which in the CEG building s original layout is a corridor.
The new front building is made entirely of steel structures for the fa ade, for the stairwells, voids and bay windows because the existing main structure cannot be put to this purpose. It all had to be made very light, with no allowances for additional weight. The incidental advantage of this choice is the high degree of transparency and elegance the design strives to achieve. Spaciousness is hugely increased. The steel outer staircase alludes to the shape of the lecture halls inside the existing building. The concept of the collaboration among the different functions is achieved by spatially connecting the different levels with voids. These voids not only link the various functions, but they are also physical, visual and spatial connections, accessible by means of staircases. The voids are staggered, presenting clear sight lines and revealing the structure of the building. These connections are also made visible in the fa ade structure, so that the essence of each department research into the Earth, water, transport and construction becomes visible behind the transparent fa ade. The functions in the front building consist for the most part of laboratories and offices that are closely interrelated.